

Rotational Flip Book – POW #4 Due Monday 9/24

The Objective is to create a flip book showing a figure rotating 360° over nine different pages. Choose a figure that you can duplicate easily for your rotation. Be creative! Your book can tell a story.

- **The first and last page must show the figure in exactly the same position.** (If you have 9 pages, what angle will make that happen?)
- **Use the construction techniques we learned in class to rotate your figure.** The lines you use to measure with your compass and protractor must be visible for each rotation. Do not erase them!
- Your book should be stapled so that will “flip”.

This POW is worth 20 points! (Twice as much as normal)

You will be graded on the following criteria:

- Accurately rotating the figure on each page using a compass and protractor (figure must start/end in the same position)
- Maintaining the same center of rotation for each figure
- Creativity and the neatness and coloring of your figure
- Your flipbook actually flips! (Use cardstock or something similar)
- **In place of a standard write up, answer the following questions neatly, correctly, in full sentences, and ON A SEPARATE PAPER.**
 1. If you have 9 pages, how many degrees will the figure need to rotate on each page in order for the figure to be to complete one full rotation by the end and return to its starting position? How did you determine this?
 2. How did you determine an appropriate point about which the figure rotated?
 3. How did you create the rotation? Fully explain your process so that someone who has never done this before would understand how to create it.

Tips

- **Check that your angle is accurate before you do all your constructions!!!**

You can make a really simple rotation to test your angle will work and ensure that the first and last image overlap properly.

Extra Credit Option

Instead of rotating 360 in 9 pages, rotate 360° in 17 pages.

Answer the same questions above but determine the different degree of rotation to make 17 pages.

This will give you the **potential** to earn extra credit on the POW if it is done well.